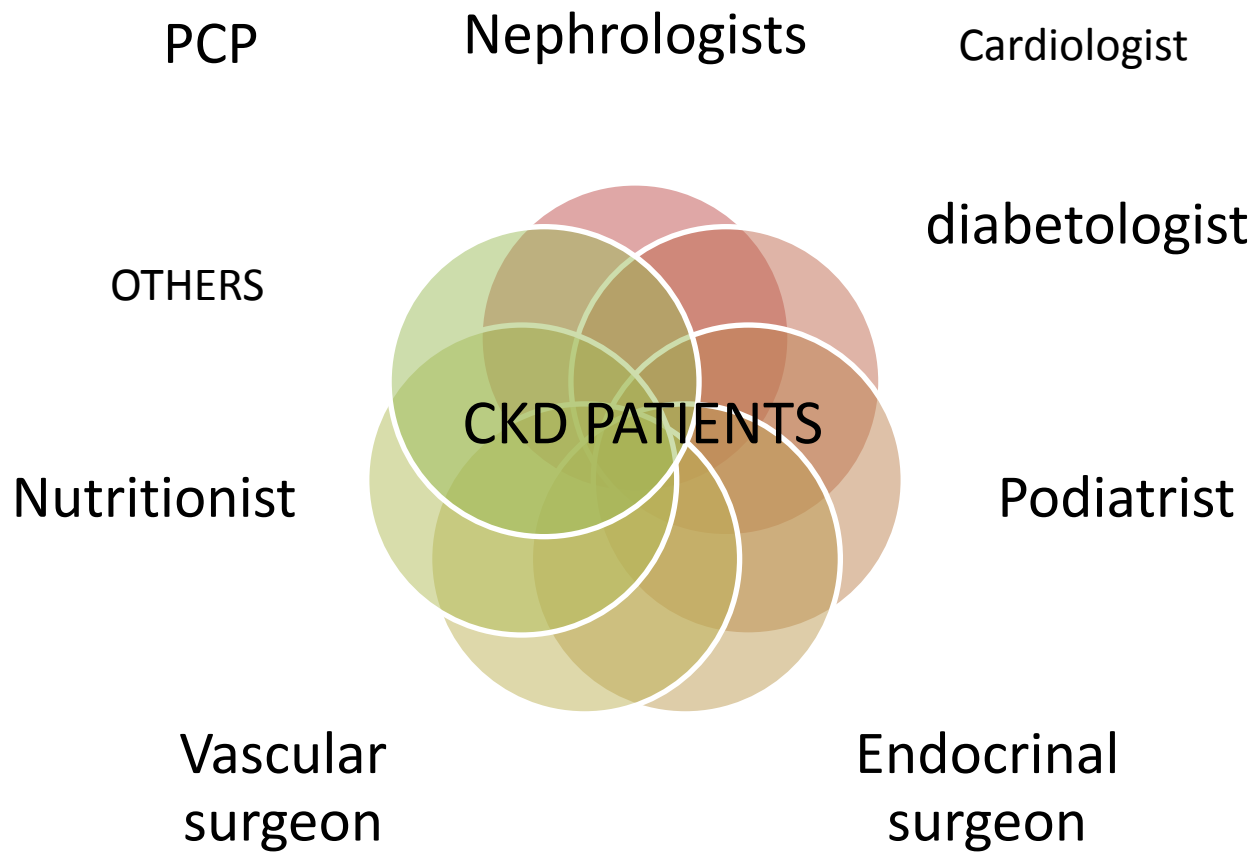


Nephrologists and non Nephrologists partnership

Mostafa Abdel_Salam Mohamed, MD
MUH



**CKD and vascular diseases
will kill 36 million people by the
year 2015**

**Pre-dialysis care is
suboptimal !!!**



The Chronic Kidney Disease Initiative

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J Am Soc Nephrol 15: 708–716, 2004

- The Chronic Kidney Disease Initiative was implemented at the request of the Council of American Kidney Societies to formulate a plan of action to solve many of the perceived problems associated with identifying, caring for, and attaining the best outcomes for patients with chronic kidney disease.

- With the assistance of a community of stakeholders and a formalized workshop and process, the Chronic Kidney Disease Initiative identified the barriers to solving this complicated problem.

- Barriers were given hierarchical significance, and solutions and action plans to the barriers were formulated.

The Council of American Kidney Societies (CAKS)

The president and president-elect

The National Kidney Foundation (NKF)

The American Society of Nephrology (ASN)

The Renal Physicians Association (RPA)

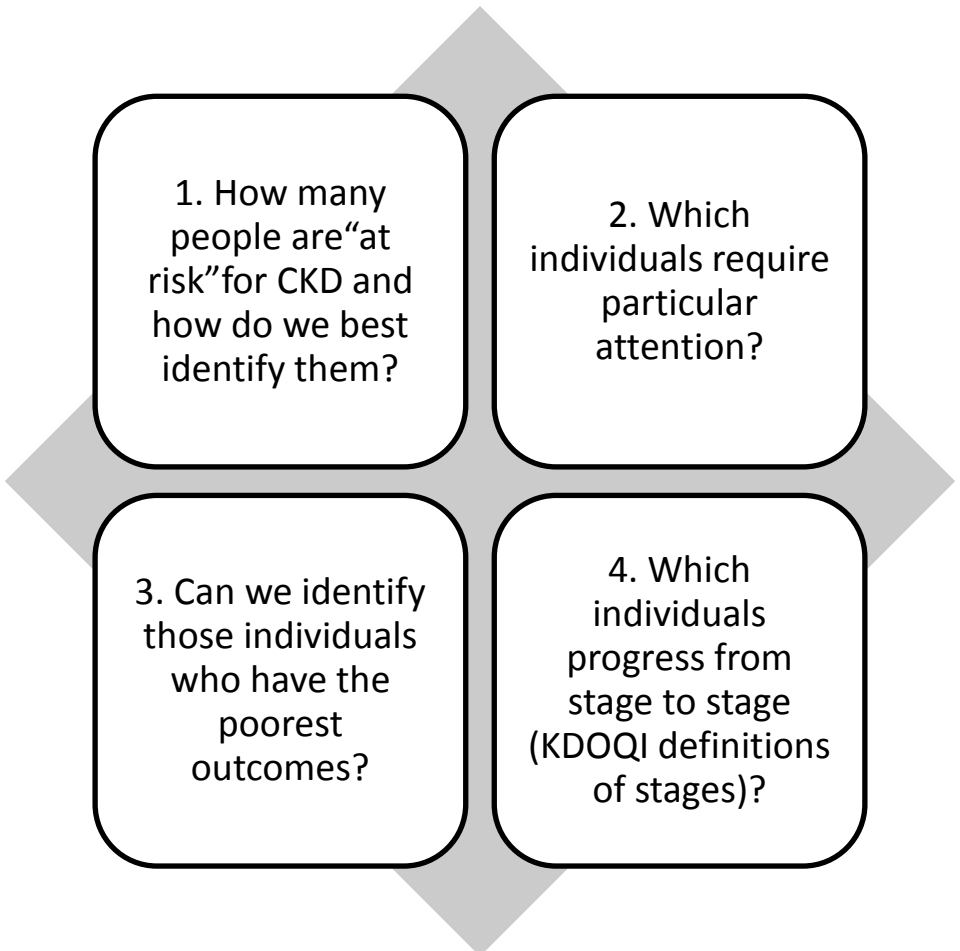
The American Society of Transplantation

The Polycystic Kidney Disease Foundation

The American Society of Pediatric Nephrology,

- The nephrology community is relatively small, and the problem is large. It is estimated that there are 11 to 30 million people in the United States with CKD or other evidence of kidney disease.

- If this population is identified through effective screening, the issue becomes who will take care of them and how best to do so. CAKS understood that a coordinated effort to deal with this enormous problem did not exist.



1. How many people are “at risk” for CKD and how do we best identify them?

2. Which individuals require particular attention?

3. Can we identify those individuals who have the poorest outcomes?

4. Which individuals progress from stage to stage (KDOQI definitions of stages)?

5. Which individuals incur the highest cost?

6. Can we identify the best evidence for best therapies and identify those patients who will respond?

7. Can simple practice guidelines be developed for the various categories of caretakers (primary care physicians, nephrologists, nurses, etc.) and patients?

8. If we implement these changes, what will be the cost to the various stakeholders (workforce costs, financial costs, time, resources, etc.)?

9. Are there medical models, applicable at the clinic level, that will provide the best patient care?

10. How should the payors be informed and involved in this initiative?

12. How do we market the whole process?

11. How to get the caregiver to “buy in”?

Barriers

- 1. GFR is not reported by laboratories
- 2. Lack of public and patient awareness and concern regarding the risks associated with CKD
- 3. Maldistribution and worsening shortage of health care providers

- 4. Lack of coordination between primary care physicians and nephrologists
- 5. Unwillingness of payors to invest in CKD care

- 6. Need for payors to recognize the value of early treatment of CKD
- 7. Absence of a coordinated system of care that includes a delivery system that will reach all CKD patients
- 8. Inadequate recognition of cardiovascular disease and complications of decreased GFR as patient outcomes of CKD, rather than end-stage renal disease the only complication

- 9. Conceptualization of CKD is very recent and not widely diffused within nephrology, medicine, or the health care system

- 10. Lack of consensus regarding the importance of CKD
- 11. Need for information on variations in care process, outcomes, and best practices
- 12. No definition of how the marketing of CKD message should be structured and implemented

- 13. Inadequate understanding of optimal context for CKD screening, prevention, and treatment
- 14. Need for nephrology leadership to unite and speak with a single voice on this issue
- 15. Lack of convincing cost-benefit data
- 16. Lack of acceptance of a uniform definition of CKD

- 17. Lack of understanding of those CKD patients for whom interventions will affect outcomes
- 18. Risk of no entity with a broad mandate to sustain these efforts long term
- 19. Lack of prospective evidence for effective tests and therapies to prevent complications of CKD

- 1. Build on and coordinate the activities of the many groups at this meeting that have been and are working on this problem
- 2. Support the efforts of the National Kidney Disease Education Program to establish a laboratory group to coordinate the activities in laboratory standardization for GFR reporting

- 3. Develop and promulgate simple guidelines targeted to patients around screening for CKD and implications of CKD
- 4. Stage the effort to achieve acceptance of a uniform definition of CKD for health providers, laboratories, payors, and the public

- 5. Promotion of research into the effectiveness of disease management systems for CKD in multiple settings and stages of disease
- 6. Collaborate with accrediting organization and regulatory bodies to develop CKD quality measures that would include GFR estimate equation reporting

- 7. Target at-risk socioeconomic and demographic populations and representative organizations for public education campaigns

- 8. Identify and classify the subgroups of CKD in which interventions have already been proven, are promising but questionable versus unknown, and simultaneously develop and measure patient outcomes of these interventions

- 9. Promote targeted clinical, basic, and epidemiological research on the relationship between CKD and cardiovascular disease (CVD)
- 10. Convene a wider stakeholder group to devise the needed research agenda

- 11. Encourage Centers for Medicaid and Medicare Services (CMS) demonstration projects on creative approaches to identify and treat patients with CKD
- 12. Wide dissemination of available evidence linking CVD and CKD to non-nephrologists and the lay community

Primary Care Physicians' Knowledge and Practice Patterns in the Treatment of Chronic Kidney Disease: An Upstate New York Practice-based Research Network (UNYNET) Study

Chester H. Fox, MD, Amanda Brooks, MD, Luis E. Zayas, PhD, William McClellan, MD, and Brian Murray

Conclusion: Facing a growing CKD incidence, PCPs can have an impact on preventing its progression and associated complications with increased familiarity of new guidelines. (J Am Board Fam Med 2006; 19:54–61.)

State of the Art: Chronic Kidney Disease Education

Stephen Z. Fadem, MD

The author is associated the Division of Nephrology, Department of Medicine, Baylor College of Medicine, Houston, Texas

September 2011 Dialysis & Transplantation

- However, our outcomes are still disappointing. The most recent U.S. Renal Data System (USRDS) database reveals that only 24.5% of incident patients have seen a nephrologist for more than 12 months prior to starting dialysis, and that only approximately 40% of patients ever see a nephrologist at all before starting care for end-stage renal disease (ESRD)

- This translates to a burdensome and often challenging dialysis start, a decreased opportunity for a positive outcome, and an overall spike in healthcare costs as patients transition into ESRD care

among those who have never seen a nephrologist, 89% start dialysis with a central venous catheter. However, even

among those patients who have seen nephrologists within a 12-month period preceding dialysis, 55% begin care with a catheter

The challenge to increase kidney disease awareness

delay the progression of disease

enable patients to make more appropriate choices

achieve a higher quality of life with better outcomes is not easy.

- Meeting this challenge will require collaboration by organizations, industry, payors, and patients



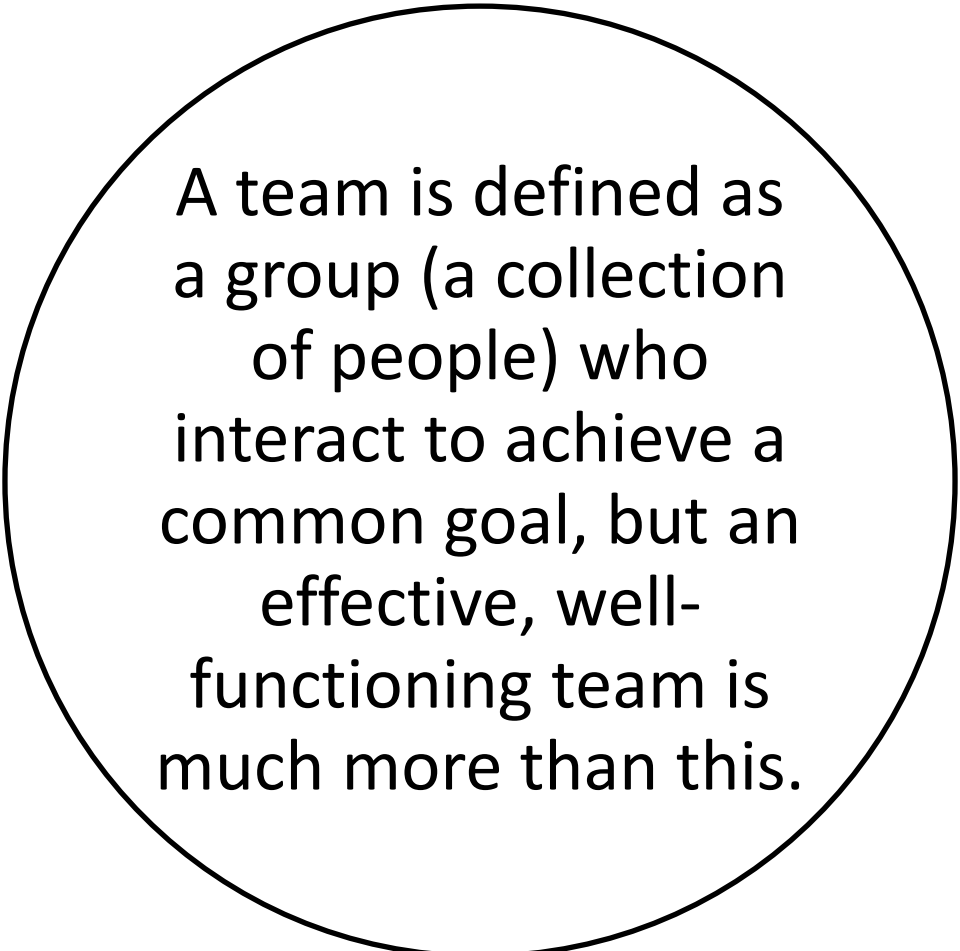
TEAMWORK

Teamwork.....Why?

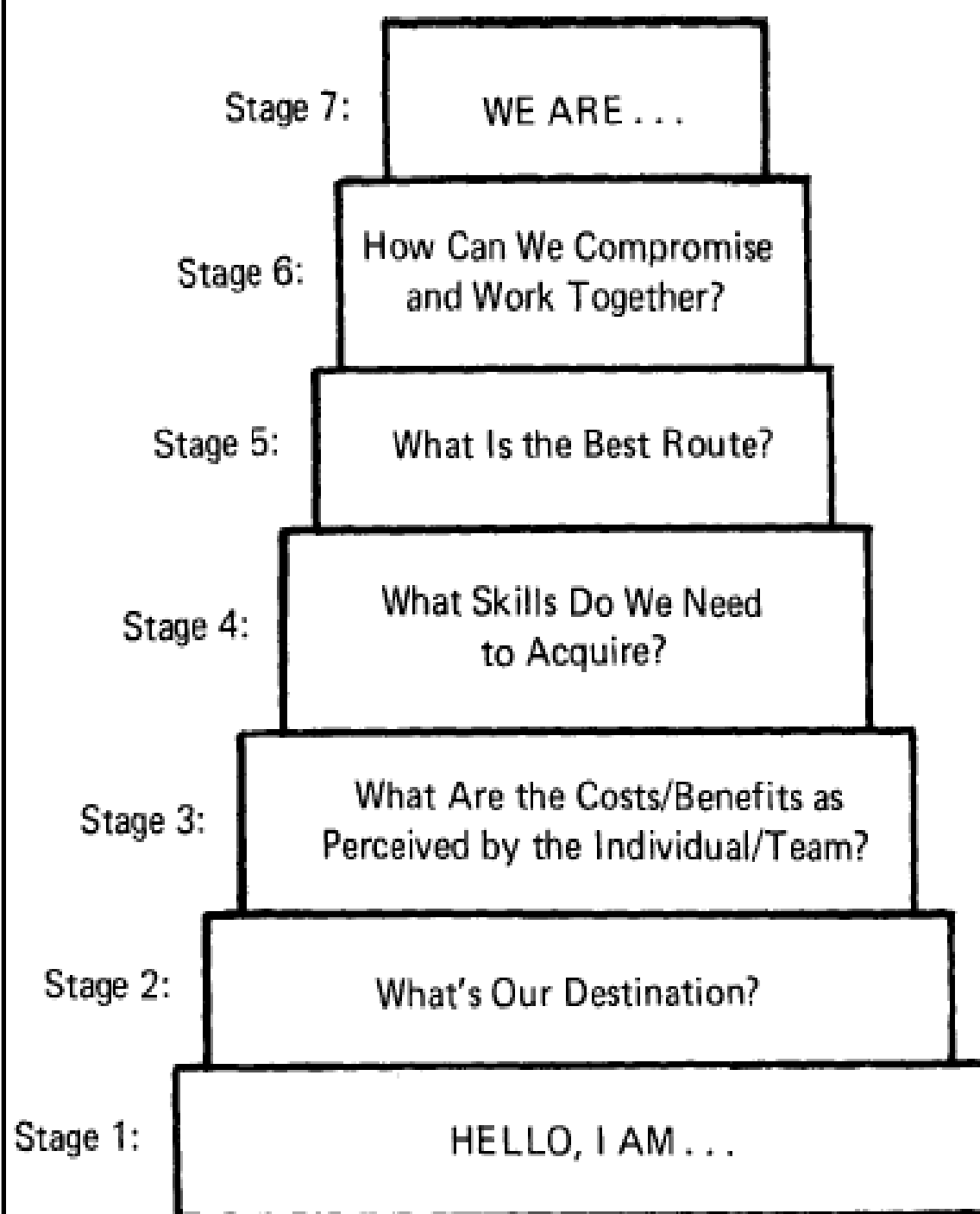
Rationale for a Team Approach

- Teams are a part of everyone's life. You're a member of a family team, a staff team, school, health care and community teams.
- So it's appropriate that you understand how to function effectively as a team member.

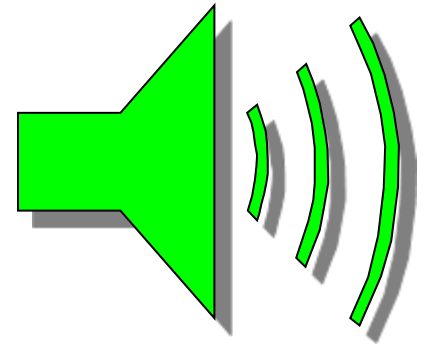
Teamwork What Is It?

A large circle with a black outline, centered on the slide. Inside the circle is a paragraph of text.

A team is defined as a group (a collection of people) who interact to achieve a common goal, but an effective, well-functioning team is much more than this.



**Nephrologists are
failing to
communicate to
PCP**



**Nephrologists are mere
providers of dialysis
therapy.....**



Primary care providers – First line of defense against CKD

- Primary care professionals can play a significant role in early diagnosis, treatment, and patient education
- Therapeutic interventions for diabetic CKD are similar to those required for optimal diabetes care
 - Control of glucose, blood pressure, and lipids
- A greater emphasis on detecting CKD, and managing it prior to referral, can improve patient outcomes

CKD is Part of Primary Care

What can primary care providers do?

- Recognize and test at-risk patients
- Educate patients about CKD and treatment
- Focus on good glycemic control in people with diabetes
- For those with CKD:
 - Blood pressure below 130/80
 - Use an ACE inhibitor or ARB
 - More than one drug is usually required
 - A diuretic should be part of the regimen

What can primary care providers do? (Continued)

- Monitor eGFR and UACR
- Treat cardiovascular risk, especially with smokers and hypercholesterolemia
- Screen for anemia (Hgb), malnutrition (albumin), metabolic bone disease (Ca, Phos, PTH)
- Refer to dietitian for nutritional guidance
- Consult or team with a nephrologist
- Encourage labs to report estimated eGFR and urine albumin/creatinine ratios

Nephrology referral suggestions

- To assist with diagnostic challenge (e.g. decision to biopsy)
- To assist with therapeutic challenge (e.g. blood pressure)
- Rapid decay of estimated GFR
- Most primary kidney diseases, (e.g. glomerulonephritides)
- Preparation for renal replacement therapy, especially when GFR less than 30

Nephrology referral suggestions, cont.

- Regardless of when you refer:
 - Obtaining preliminary evaluation (e.g. ultrasound, screening serologies)
 - Providing consultant with patient history including serial measures of renal function

Nephrologist

- maintaining renal function and manage associated metabolic changes and prolong time till dialysis.
- hemodialysis
- Nephrologists manage Acute Renal Failure
- Nephrologists are specialists in electrolyte, fluid balance, acid/base, anemia assoc renal disease, metabolic bone disease, and Hypertension management.

CKD CARE

- ✿ Optimal management requires nephrology specialist referral

However

- ✿ This referral usually happen shortly before the need for RRT

Consequences of Late Referral

Missed opportunity to identify reversible or treatable causes of chronic kidney disease

Excess morbidity associated with complications of renal failure (anemia, hypertension, cardiovascular disease, etc.)

Lack of adequate preparation for renal replacement therapy and for exploration of therapy options

Possible increased cost of care

Delayed initiation of renal replacement therapy

Increased mortality among those with end-stage renal disease on dialysis

Unmeasured effects (e.g., starting uremia therapy under emergency conditions without adequate preparation is a “turn off” that may foster a negative attitude about dialysis therapy and may result in noncompliance)

Suggested Causes of Late Referral

Fear of patient loss by primary care physician

Managed care (gatekeepers)

Failure to detect kidney failure (knowledge deficit)

Physician inertia

Renal reserve

Lack of symptoms in most patients with chronic kidney failure until incipient uremia

OPTIMAL REFERRAL

EARLY REFERRAL

Superior Doctors Prevent Disease

Inferior Doctors treat Full blown Disease

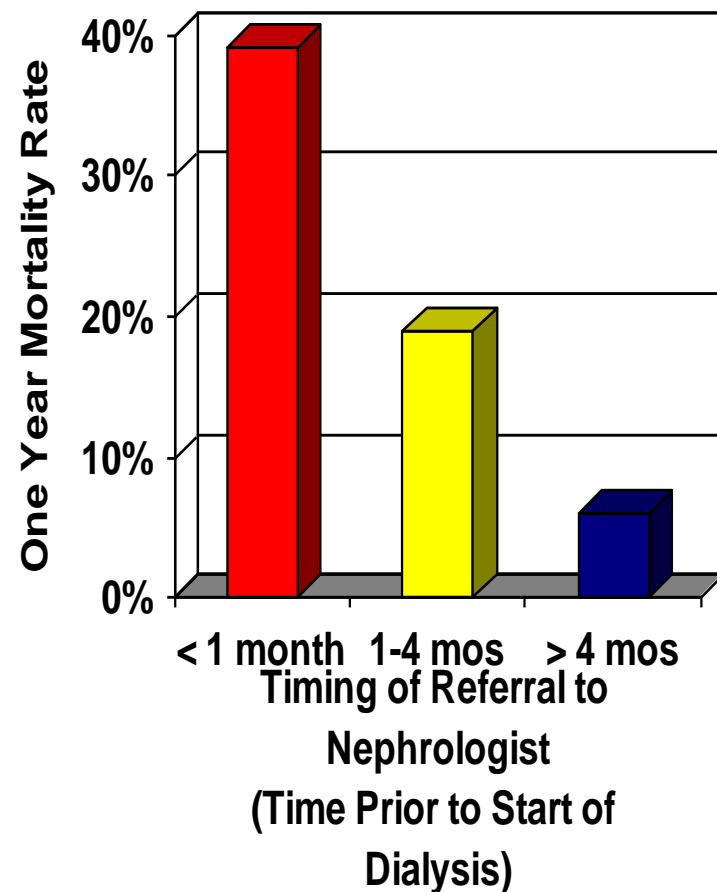
Huang Dee, 2600 BC

Timely Referral Leads to Reduced Mortality

In a Recent Study of 300 Medicare Beneficiaries, the Risk of Death in the First Year on Dialysis Was Reduced by 48% For Early Referral Patients Compared to Late Referral Patients. ² Several Other Studies Shown Below Confirm This.

	<u>Early Referral</u>	<u>Late Referral</u>
90 Day Mortality ³	3%	13%
6 Month Mortality ⁴	13%	31%
1 Year Mortality ⁵	6%	39%
1 Year Mortality ²	22%	41%
2 Year Mortality ⁶	56%	69%

Impact of Timing of Referral to Nephrologist on Mortality ⁵



PCP and Nephrology Coordinated Care can impact progression of CKD

- Intensive glycemic control lessens progression and microalbuminuria in Type 1 diabetes—goal in Type 2 is less clear
 - DCCT, 1993
 - ACCORD, 2008
- Antihypertensive therapy with ACE Inhibitors or ARBs lessens proteinuria and progression
 - Giatras, et al., 1997
 - Psait, et al., 2000
 - Jafar, et al., 2001
- For adult patients with CKD a BP target of 140/90 or less is recommended. CKD patients with proteinuria of 300-1000 mg/day may benefit from a lower BP target.

-Ann Intern Med, 2011; 154:541-548

The 30-20-10 Plan

Appropriate Planning for Dialysis and Transplantation

CrCl of 30-50 ml/min	CrCl of 20 ml/min	CrCl of 10/ml min
<ul style="list-style-type: none">• Refer to Nephrologist• Assess Residual Renal Function• Evaluate Nutritional Status• Disease Management (BP, Glucose control, etc.)• Database started – PCP Feedback• Refer to CKD Education Coordinator, Dietitian, Social Worker, Financial Counselor• Encourage to save arm veins• Begin Evaluating Potential Donor for Transplantation	<ul style="list-style-type: none">• Determine modality choice with Patient• Vein Mapping• Placement of permanent access (strong preference for A-V fistulae or tunneled PD catheters)• Disease Management• Cardiovascular evaluation/LVH• Refer to patient mentor and patient/family support group• Recommend Hep B Vaccine	<ul style="list-style-type: none">• Consider definitive therapy (dialysis / tx)• Co-Morbidity Management• Continue educational support (Dietary, Social Service, Financial)

Formula 1 Pit crew model

- “F1 Pit Crews can change all 4 tires and refuel the car in 7 seconds.”

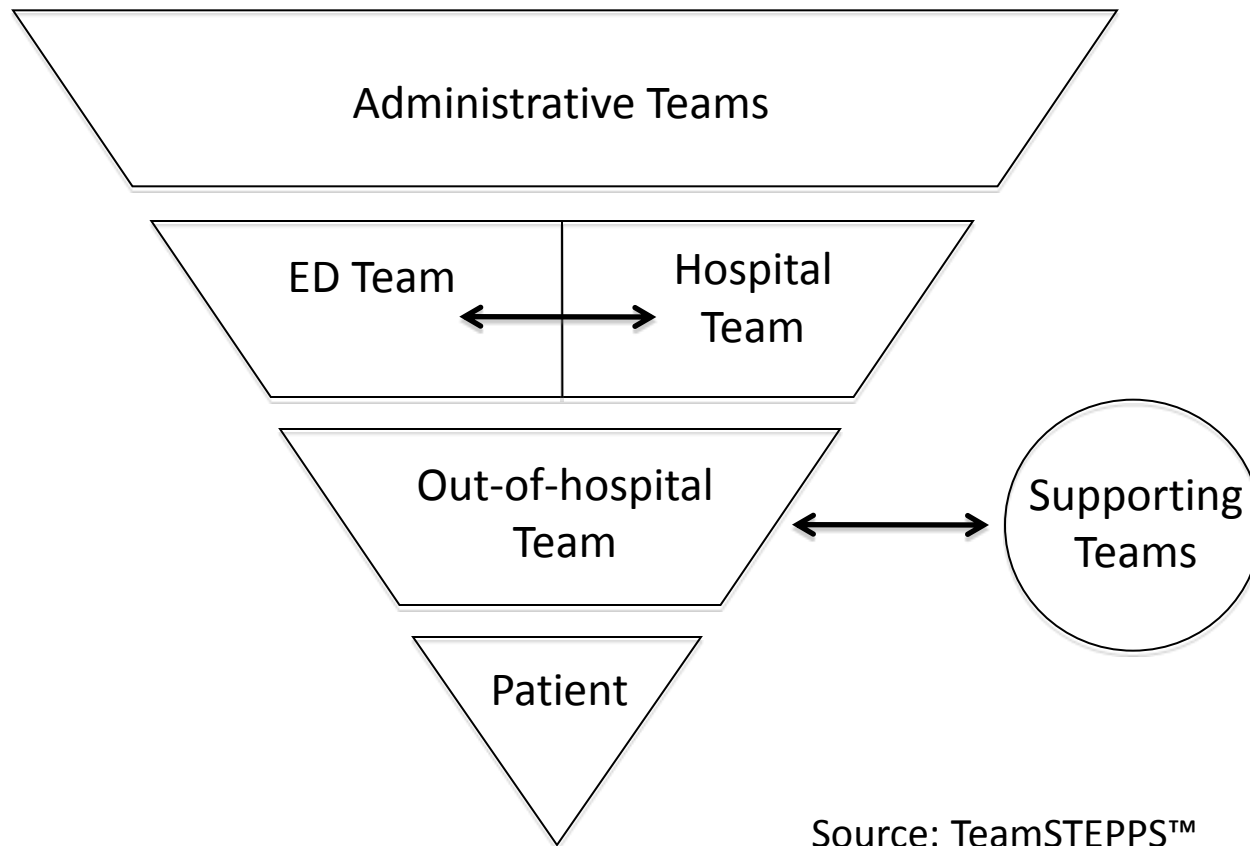


Formula 1 Pit crew model

- Developed by the Formula 1 team in 1994
- A tire came off during impact causing head injury to the driver and subsequent death
- Assigned and trained for specific roles
- Developed checklists
- Drilled for perfection
- Assigned team leader (known as the lollipop man)
- Results: No deaths from 1994 to 2011

Team structure

- Multiple team system for patient care



Source: TeamSTEPPS™

The highest reward for a person's toil is not what they get for it, but what they become by it.

... John Ruskin

قال صلى الله عليه وآله وسلم

(من لم يشكر الناس لم يشكر الله)



Thank you!

The image features the words "Thank you!" in a highly decorative, hand-drawn style. The letters are thick and outlined in black. The word "Thank" is positioned above "you!". The 'T' is yellow with a red vertical line and a wavy pattern. The 'h' is orange with a red wavy line. The 'a' is green with a black dotted border. The 'n' is purple with a black dotted border. The 'k' is orange with a red wavy line. The word "you!" is below it. The 'y' is green with a black dotted border. The 'o' is pink with a black dotted border. The 'u' is blue with a black dotted border. The exclamation point is blue with a black dotted border. There are several flowers: a large pink one with a yellow center in front of the 'y', a blue one to its left, and two more blue ones to the right of the 'K'. A small blue flower is above the 'K'. A blue teardrop shape is to the right of the 'u', and a small blue circle is below it. The background is white.